WHAT IS CLAIMED IS:

1. A temperature control assembly comprising:

a housing of generally annular cross-section, wherein the housing comprises:

an aperture generally disposed along a center axis of the housing;

a first side disposed between the aperture and an outside edge of the housing and including a surface generally perpendicular to the center axis;

a channel disposed through the surface;

a second side disposed between the aperture and the outside edge and having a reflective appearance;

a plurality of sockets disposed between the surface and the second side and formed to accept a plurality of heating elements; and

a flange disposed along the first side and having a plurality of holes arranged substantially to align the temperature control assembly for use in an etching process chamber assembly and to position the second side to face toward a process chamber of the etching process chamber assembly;

a cooling conduit formed from a non-corrosive metallic material, wherein the cooling conduit is disposed along a groove created in the first side, disposed within the channel, and disposed adjacent to the aperture;

a plurality of fasteners coupled to the housing and operable to associate the cooling conduit with the housing; and

a mounting block coupled to the cooling conduit.

2. The temperature control assembly of Claim 1, wherein the plurality of fasteners comprises:

a plurality of first fasteners disposed within a plurality of cavities, wherein the cavities are formed in the surface such that the first fasteners disposed within the cavities do not extend past the surface; and

a plurality of second fasteners disposed along the housing adjacent to the groove such that the second fasteners do not extend past the surface.

3. The temperature control assembly of Claim 2, wherein the vertical distance between the bottom of each of the cavities and the bottom of the channel is less than the vertical distance between the top of the cooling conduit as it rests in the channel and the bottom of the channel, such that when coupled to the housing the first fasteners associate the cooling conduit with the housing by clamping the cooling conduit within the channel.

4. The temperature control assembly of Claim 2, wherein the second fasteners each include a curved surface that engages the outside surface of the cooling conduit, the curved surface having a shorter radius than the outside surface, such that when coupled to the housing the second fasteners associate the cooling conduit with the housing by clamping the cooling conduit against the housing.

5. The temperature control assembly of Claim 1, wherein the housing is formed of aluminum.

6. The temperature control assembly of Claim 1, wherein the non-corrosive metallic material is copper.

7. The temperature control assembly of Claim 1, wherein the non-corrosive metallic material is stainless steel.

8. The temperature control assembly of Claim 1, wherein the mounting block is formed from a metal complementary to the non-corrosive metallic material.

9. The temperature control assembly of Claim 1, wherein the groove has a radius substantially equal to the radius of the cooling conduit.

10. A method for retrofitting a temperature control assembly, comprising:

removing an original cooling mechanism from a temperature control assembly, the temperature control assembly comprising a housing and wherein the housing comprises:

an aperture generally disposed along a center axis of the housing;

a first side disposed between the aperture and an outside edge of the housing and including a surface generally perpendicular to the center axis;

a channel disposed through the surface;

a second side disposed between the aperture and the outside edge and having a reflective appearance;

a plurality of sockets disposed between the surface and the second side and formed to accept a plurality of heating elements; and

a flange disposed along the first side and having a plurality of first holes arranged substantially to align the temperature control assembly for use in an etching process chamber assembly and to position the second side to face toward a process chamber of the etching process chamber assembly;

creating a plurality of cavities in the surface adjacent to the channel;

drilling and tapping a plurality of second holes in the plurality of cavities;

creating a groove disposed along the first side;

drilling and tapping a plurality of third holes in the first side adjacent to the groove;

selecting a retrofit cooling conduit formed from a non-corrosive metallic material;

disposing the retrofit cooling conduit along the groove and within the channel;

coupling a plurality of fasteners to the housing using the second holes and the third holes to associate the retrofit cooling conduit with the housing such that the fasteners do not extend past the surface;

selecting a retrofit mounting block; and

coupling the retrofit mounting block to the retrofit cooling conduit.

11. The retrofitting method of Claim 10, wherein removing the original cooling mechanism from the temperature control assembly comprises machining the temperature control assembly to disassociate the original cooling mechanism from the temperature control assembly.

12. The retrofitting method of Claim 10, wherein the groove has a radius substantially equal to the radius of the cooling conduit.

13. The retrofitting method of Claim 10, wherein creating the plurality of cavities in the surface adjacent to the channel comprises machining the plurality of cavities into the surface.

14. The retrofitting method of Claim 10, wherein the plurality of fasteners comprises:

a plurality of first fasteners disposed within the plurality of cavities, wherein the vertical distances between the bottoms of the cavities and the bottom of the channel are less than the vertical distance between the top of the cooling conduit as it rests in the channel and the bottom of the channel, such that that when coupled to the housing the plurality of first fasteners associates the cooling conduit with the housing by clamping the cooling conduit within the channel; and

a plurality of second fasteners that include curved surfaces that engage the outside surface of the cooling conduit, the curved surfaces having shorter radii than the outside surface, such that when coupled to the housing the plurality of second fasteners associates the cooling conduit with the housing by clamping the cooling conduit against the housing.

15. The retrofitting method of Claim 10, wherein the non-corrosive metallic material is copper.

16. The retrofitting method of Claim 10, wherein the non-corrosive metallic material is stainless steel.

17. The retrofitting method of Claim 10, wherein the retrofit mounting block is formed from a metal complementary to the non-corrosive metallic material.

18. The retrofitting method of Claim 17, wherein coupling the retrofit mounting block to the retrofit cooling conduit comprises soldering the retrofit mounting block and the retrofit cooling conduit.

19. A temperature control assembly comprising:

a housing of generally annular cross-section, wherein the housing comprises:

an aperture generally disposed along a center axis of the housing;

a first side disposed between the aperture and an outside edge of the housing and including a surface generally perpendicular to the center axis;

a channel disposed through the surface;

a second side disposed between the aperture and the outside edge and having a reflective appearance;

a plurality of sockets disposed between the surface and the second side and formed to accept a plurality of heating elements; and

a flange disposed along the first side and having a plurality of holes arranged substantially to align the temperature control assembly for use in an etching process chamber assembly and to position the second side to face toward a process chamber of the etching process chamber assembly;

a cooling conduit formed from a non-corrosive metallic material, wherein the cooling conduit is disposed along a groove created in the first side, disposed within the channel, and disposed adjacent to the aperture;

a plurality of fasteners coupled to the housing and operable to associate the cooling conduit with the housing, wherein the plurality of fasteners comprises:

a plurality of first fasteners disposed within a plurality of cavities, wherein the cavities are formed in the surface such that the first fasteners disposed within the cavities do not extend past the surface, and wherein the vertical distance between the bottom of each of the cavities and the bottom of the channel is less than the vertical distance between the top of the cooling conduit as it rests in the channel and the bottom of the channel, such that when coupled to the housing the first fasteners associate the cooling conduit with the housing by clamping the cooling conduit within the channel; and

a plurality of second fasteners disposed along the housing adjacent to the groove such that the second fasteners do not extend past the surface, and wherein the second fasteners each include a curved surface that engages the outside surface of the cooling conduit, the curved surface having a shorter radius than the outside

surface, such that when coupled to the housing the second fasteners associate the cooling conduit with the housing by clamping the cooling conduit against the housing; and

a mounting block formed from a metal complementary to the non-corrosive metallic material and coupled to the cooling conduit.

20. The temperature control assembly of Claim 19, wherein the housing is formed of aluminum and the non-corrosive metallic material is copper.